Amendment to the Claims:

Claims 1-21 (Canceled)

22. (Currently amended) A transgenic mouse whose genome comprises a null neuronal tyrosine/threonine phosphatase 1 (NTTP1) allele~~disruption in an endogenous NTTP1 gene~~; said null allele comprising exogenous DNA~~, wherein where the disruption is homozygous, the transgenic mouse lacks production of functional NTTP1 protein, and exhibits anti-depressive behavior when compared to a wild-type mouse.~~.

23. (Currently amended) The transgenic mouse of claim ~~22~~33, wherein the anti-depressive behavior is characterized by a decrease in time spent immobile while tail suspended, relative to a wild-type control mouse.

24. (Currently amended) A cell or tissue ~~obtained~~ isolated from the transgenic mouse of claim 22.

25. (Currently amended) ~~A~~ The transgenic mouse of claim 22~~comprising a heterozygous disruption in an endogenous NTTP1 gene~~, wherein the mouse is ~~disruption in a~~ homozygous ~~state inhibits production of functional NTTP1 protein resulting in a transgenic mouse exhibiting anti-depressive behavior when compared to a wild-type mouse~~for said null allele.

Claim 26 (Canceled)

27. (Currently amended) A method of producing ~~a~~ the transgenic mouse of claim 22~~comprising a disruption in an endogenous NTTP1 gene~~, the method comprising:

    (a) introducing a targeting construct capable of disrupting an endogenous NTTP1 ~~gene~~ allele into a ~~murine~~ mouse embryonic stem cell;

    (b) selecting for the ~~murine~~ embryonic stem cell which has undergone homologous recombination;

    (c) introducing the ~~murine~~ embryonic stem cell selected for in step (b) into a mouse blastocyst;

    (d) implanting the resulting blastocyst into a pseudopregnant mouse, wherein the resultant mouse ~~gives birth to~~generates ~~a~~ chimeric ~~mouse~~mice; and

    ~~(e)~~breeding the chimeric ~~mouse~~ mice to produce the transgenic mouse~~,~~

~~wherein where the disruption is homozygous, the transgenic mouse lacks production of functional NTTP1 protein and exhibits anti-depressive behavior when compared to a wild-type mouse~~.

Claims 28-31 (Canceled)

32. (New) The transgenic mouse of claim 22, wherein the mouse is homozygous for said null allele.

33. (New) The transgenic mouse of claim 32, wherein the mouse exhibits, relative to wild-type control mouse, anti-depressive behavior.

34. (New) The transgenic mouse of claim 22 wherein said exogenous DNA comprises a gene encoding a selection marker.

35. (New) The transgenic mouse of claim 34 wherein said gene is a neomycin resistant gene.

36. (New) The transgenic mouse of claim 22 wherein said exogenous DNA comprises a gene encoding a visible marker.

37. (New) The transgenic mouse of claim 36 wherein said gene encoding for a visible marker is a lacZ gene.

38. (New) The transgenic mouse of claim 22 wherein said null allele comprises exogenous DNA said exogenous DNA located between nucleotides 142 and 305 of SEQ ID NO: 1.

39. (New) A method of identifying an agent capable of modulating activity of a NTTP1 gene or NTTP1 gene expression product, the method comprising:

    a. administering a putative agent to the transgenic mouse of claim 22;
    b. administering the agent to a wild-type control mouse; and
    c. comparing a physiological response of the transgenic mouse with that of the control mouse;

    wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating activity of the gene or gene expression product.